Opener Question

Solve

i) x + 5 = 10

ii) -2x + 4 = 12

iii) x/4 -3 = 4

iv) 3x - 10 = 2(x-3)

Feb 6-8:58 AM

Opener Question

Solve

i) x + 5 = 10

$x = 10 - 5$

$x = 5$

Proof

$5 + 5 = 10$

$10 = 10$

LS = RS

ii) -2x + 4 = 12

2 step solving

+ and −

× and ÷

$-2x = 12 - 4$

$\frac{-2x}{-2} = \frac{8}{-2}$

$x = -4$

iii) x/4 -3 = 4

$\frac{x}{4} = 4 + 3$

$4\left(\frac{x}{4}\right) = (7)4$

$x = 28$

iv) 3x - 10 = 2(x-3)

$3x - 10 = 2x - 6$

$3x - 2x - 10 = -6$

$x - 10 = -6$

$x = -6 + 10$

$x = +4$

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Three Forms of the Line

1) Slope/Y-int

y= mx + b
y= -3x + 2

$m = \frac{\Delta y}{\Delta x} = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$

2) Two Variable Form (combo)

ax + by = c
3x + 2y = 16

3) Standard Form

Ax + By + C = 0
3x - 2y + 8 = 0

A= positive

A = whole number

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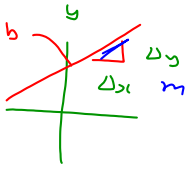
The Roles of Slope and Intercepts

Equation of the Line

y = mx + b

m is the steepness of the line (slope)
the greater the magnitude the steeper the line
positive slope = + value (up and to the right)
negative slope = - value (down and to the right)
m = slope (rate of change)



b = y intercept (point at which the line crosses the y axis)

ax + by =c -Two Variable Format

Intercepts

Point at which the line crosses the x axis (x intercept) y = 0
and y axis (y intercept) x = 0
Graphed by Substitution

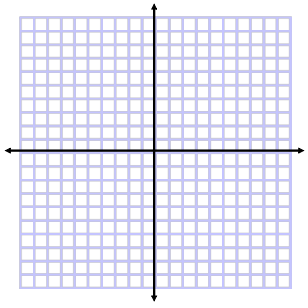
x = 0 and y = 0

Max peanuts
Max raisons

Feb 23-2:29 PM

1) Graphing using the intercept method

y = 4x - 8



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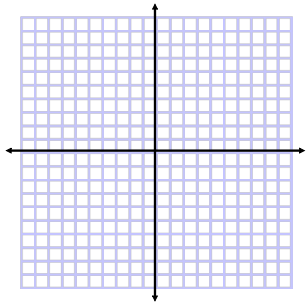
1) Graphing using the intercept method

y = 4x - 8



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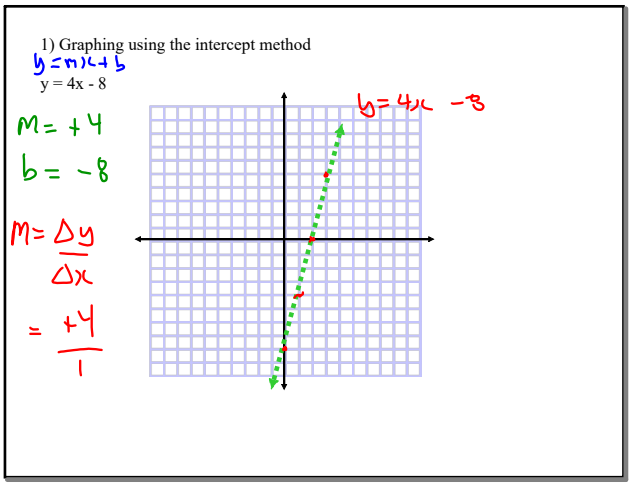

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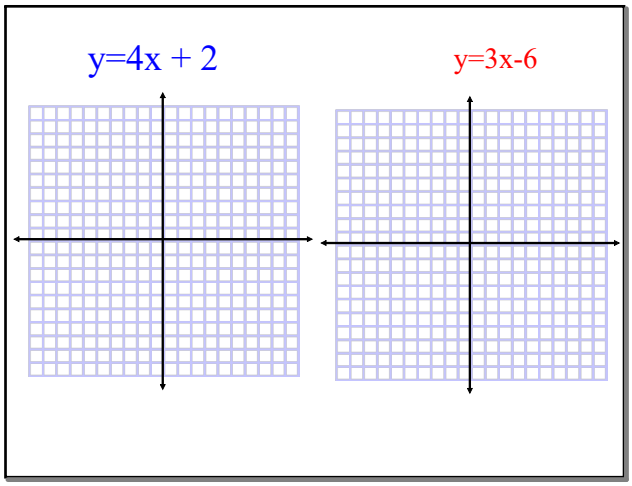

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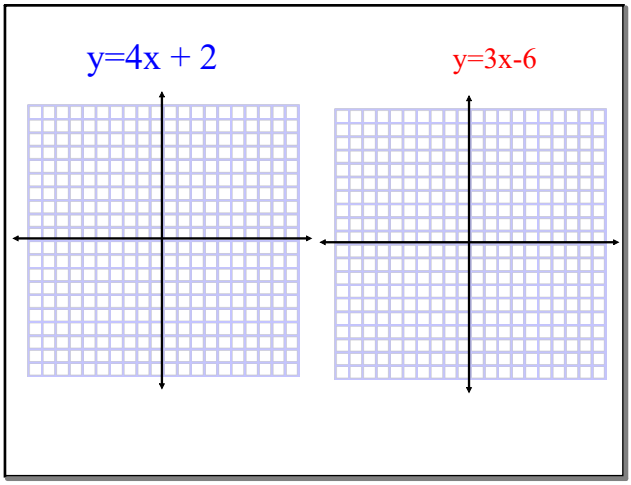

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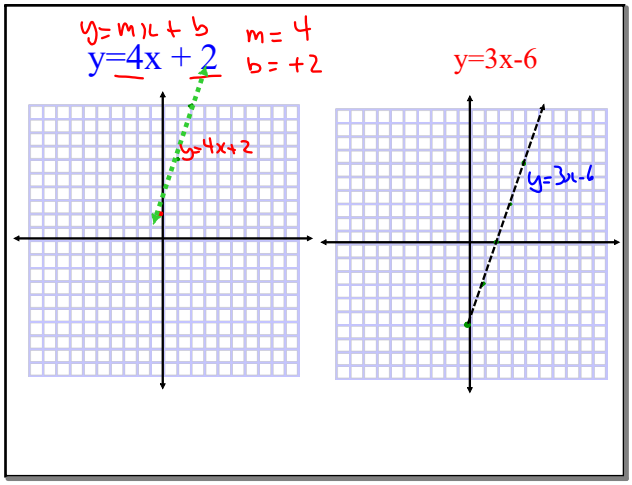

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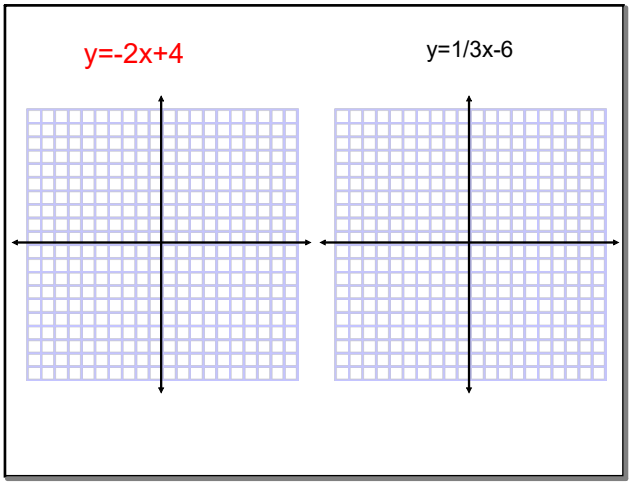

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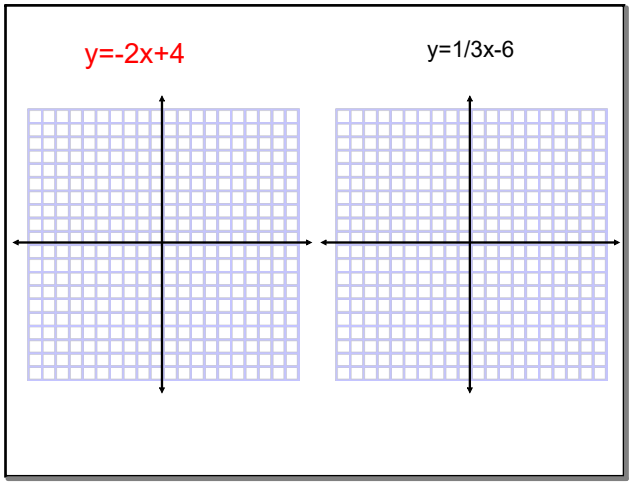

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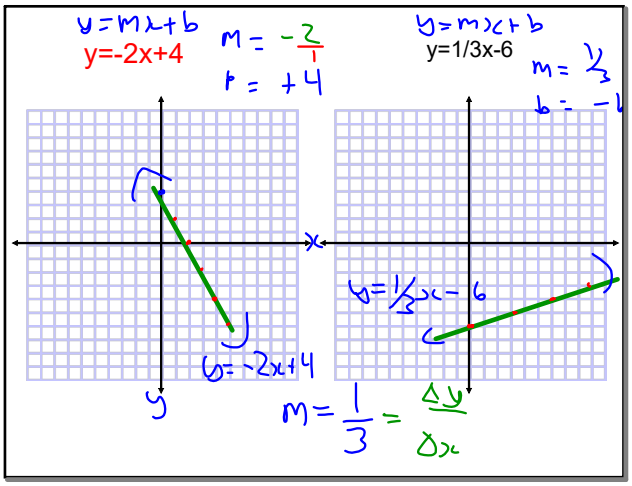

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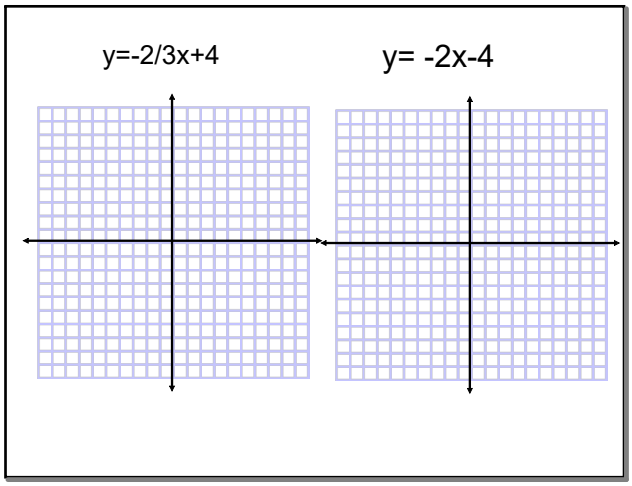

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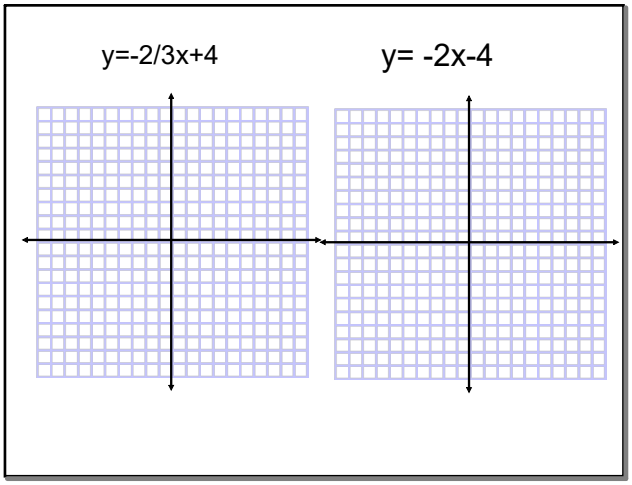

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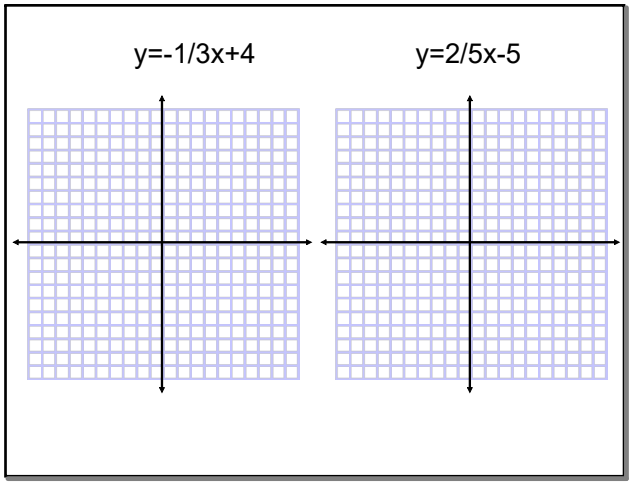

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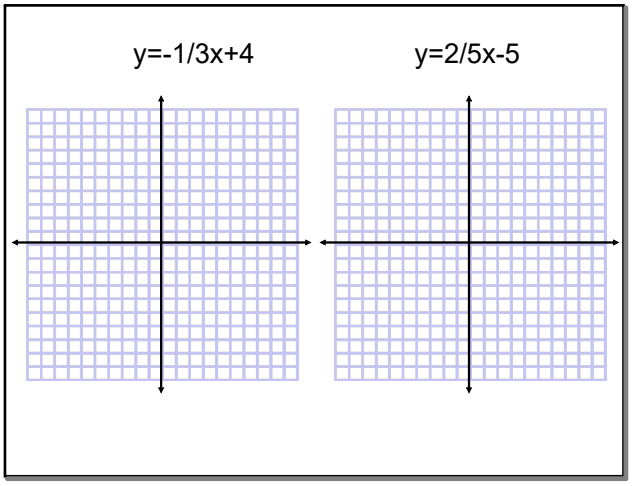

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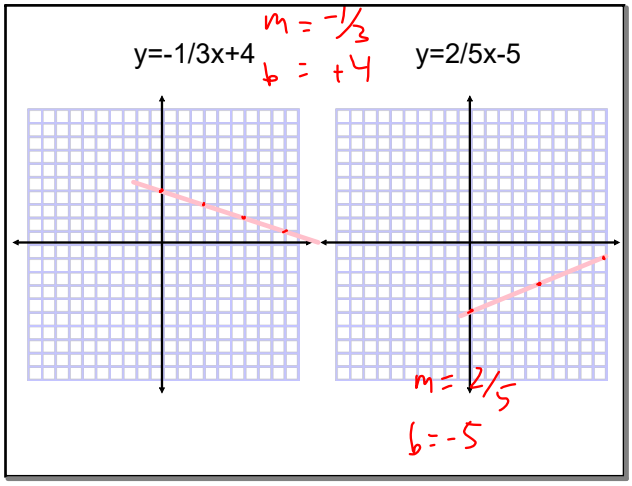

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Creating Equation of the Line

1) From Two points

(1,2) (3,7)

$y = mx + b$

2) Slope and a point

Slope of -3 and passes through point A (6,8)

3) Y-intercept and a point

Crosses y axis at -3 and passes through the point A (-5,8)

Mar 11-1:33 PM

Creating Equation of the Line

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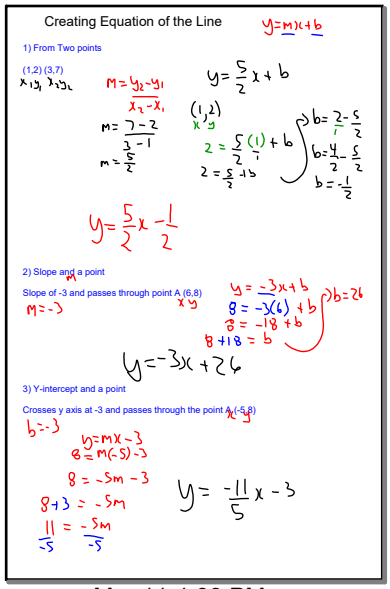
Mar 11-1:33 PM



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Seat Work

Using the Slope and y-intercept
q. 1-6 odds p. 470
Slope and Equation of a Line
1-3,6,7 p. 4-6

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Feb 6-7:23 AM